

EXPEDITED HANDLING PROCEDURE

PURSUANT TO 37 C.F.R. § 1.116

Application No. 09/544,349

Reply to Office action of April 6, 2000

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of preparing a snack product from a cooked cereal dough, comprising the steps of:
 - A. providing free cereal grain pieces having a particle size of about 0.5 to 2.5 mm and a moisture content of at least 18%;
 - B. cooking and forming the grain pieces into a cooked cereal dough in a cooker extruder in a first cooking step at a temperature sufficient to gelatinize cereal starch in the grain pieces to provide an at least partially cooked cereal ~~mass or~~ dough having discernible grain bits from the free cereal grain pieces of step A, said forming step including adding sufficient amounts of moisture to provide the cooked cereal dough with a moisture content of about 21 to 35%; and
 - C. immediately thereafter, subjecting the cooked cereal dough to a second cooking step at a temperature of about 120 to about 194°C (248 to 380°F) for about 15 to 45 minutes to form an extended time cooked cereal dough having said discernible grain bits dispersed therein.
2. (previously presented) The method of claim 1 additionally comprising the steps of:
 - forming the cooked cereal dough into pellets each weighing about 0.25 to 10g; and
 - drying the pellets to a moisture content of about 8% to 14%.

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3. (previously presented) The method of claim 2 additionally comprising the step of: rapidly heating the pellets to provide puffed finished grain based snacks.

4. (original) The method of claim 1 wherein step A comprises the substeps of:

- 1) preparing a raw cereal premix comprising at least one grain ingredient selected from the group consisting of wheat, corn (maize), oats, rye, triticale and mixtures thereof; and
- 2) admixing sufficient amounts of water and/or hot moisture containing ingredients to provide a wetted preblend with a moisture content of at least 18%, and
- 3) steeping the wetted preblend until the added moisture is absorbed.

5. (original) The method of claim 1 wherein the cereal grain includes corn (maize).

6. (previously presented) The method of claim 1 wherein steps B and C are practiced to provide the dough with a Specific Mechanical Energy ("SME") value of less than 35 watt-hours/kg of dough.

7. (previously presented) The method of claim 3 wherein the rapid heating includes deep fat frying to provide fried puffed grain based snacks having a fat content of about 15 to 40% by weight.

8. (original) The method of claim 6 wherein the cooked cereal dough includes sufficient amounts of nutritive carbohydrate ingredients to provide a total sugar content of about 1 to 15% (dry weight).

9. (original) The method of claim 6 wherein the cereal grain has a native moisture content of about 10% to 14% prior to admixing with the added moisture.

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10. (original) The method of claim 6 wherein the dough includes a member selected from the group consisting of sugar(s), salt, minerals, vitamins, flavors, sodium bicarbonate, and mixtures thereof.
11. (previously presented) The method of claim 4 wherein the steeping substep is performed with intermittent agitation.
12. (previously presented) The method of claim 11 additionally comprising the step of extruding the extended time cooked cereal dough into at least one dough rope extrudate.
13. (previously presented) The method of claim 12 wherein Step B is practiced in a twin screw extruder and has a duration of about 0.1 to 3 minutes.
14. (original) The method of claim 13 wherein step C is practiced in a cooker having an Archimedes screw operated at about 1-10 rpm for about 15 to 45 minutes.
15. (previously presented) The method of claim 14 additionally comprising the step of tempering the extended time cooked cereal dough ropes for a duration of about 1 to 5 minutes while cooling from about 93.3-104.5°C (200-220°F) to about 54.4-76.6°C (130-170°F).
16. (canceled)
17. (previously presented) The method of claim 15 additionally comprising the step of size reducing the cooled and tempered extended time cooked cereal dough to form pieces of about 2 to 8 mm.

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18. (previously presented) The method of claim 17 additionally comprising the step of sheeting the cooled and tempered extended time cooked cereal dough pieces using sheeting rolls to form a continuous cooled and tempered extended time cooked cereal dough sheet.
19. (previously presented) The method of claim 18 additionally comprising the step of forming the continuous cooled and tempered extended time cooked cereal dough sheet into at least one ribbon.
20. (previously presented) The method of claim 19 additionally comprising cutting the ribbon into a plurality of ribbons.
21. (original) The method of claim 19 additionally comprising the step of pneumatically conveying the size reduced cooked dough pieces prior to sheeting.
22. (previously presented) The method of claim 3 wherein the finished puffed grain based snacks have a fat content of about 25% to 35%.
23. (original) The method of claim 22 wherein the grain includes at least 51% corn (maize).
24. (previously presented) The method of claim 2 wherein the pellet forming step involves feeding at least one ribbon of two plys of cooked cereal dough into a rotary cutter.
25. (previously presented) The method of claim 3 additionally comprising the step of applying a topical seasoning to the puffed finished grain based snack.

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26. (previously presented) The method of claim 25 wherein steps B and C are practiced to provide the dough with a Specific Mechanical Energy ("SME") value of about 10 to 25 watt-hours/kg of cooked dough.
27. (previously presented) The method of claim 12 wherein the dough extrusion step is practiced to form a plurality of cooked dough ropes each having a diameter of about 3 to 25 mm.
28. (previously presented) The method of claim 3 wherein the rapid heating includes microwave heating.
29. (previously presented) The method of claim 3 wherein the rapid heating includes hot air puffing.
30. (previously presented) The method of claim 3 wherein the rapid heating includes deep fat frying.
31. (original) The method of claim 1 wherein step B is practiced in a twin screw extruder.
32. (original) The method of claim 31 wherein the residence time for step B ranges from about 10 to 30 seconds.
33. (previously presented) The method of claim 32 wherein step C is practiced after step B without intermediate pumping of the cooked cereal dough.
34. (previously presented) The method of claim 32 wherein step C is practiced after step B with intermediate pumping of the cooked cereal dough

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35. (previously presented) The method of claim 34 wherein the intermediate pumping of the cooked cereal dough is practiced with a gear pump.

36. (previously presented) The method of claim 32 wherein step C is practiced after step B within less than 30 seconds.

37. (original) The method of claim 19 wherein the ribbon has two plys.

38. (previously presented) The method of claim 1 additionally comprising the step of: sheeting the extended time cooked cereal dough to form a continuous cooled and tempered extended time cooked cereal dough sheet.

39. (previously presented) The method of claim 38 wherein the extended time cooked cereal dough immediately prior to sheeting has a temperature of about 77°C to 87.8°C (171°F to about 190°F).

40. (original) The method of claim 2 wherein the pellets are in the form of cornucopias.

41. (previously presented) The method of claim 3 additionally comprising the step of applying a topical coating to the puffed finished grain based snacks.